ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE
5 - System Development and Demonstration	**0604710A - Night Vision Systems - Eng Dev**

	COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
	Total Program Element (PE) Cost	48826	116037	55410	Continuing	Continuing
L67	SOLDIER NIGHT VISION DEVICES	15750	30014	24637	Continuing	Continuing
L70	NIGHT VISION DEV ED	14831	75846	7736	Continuing	Continuing
L75	Profiler			5432	Continuing	Continuing
L76	Dismounted Fire Support Laser Targeting Systems	18245	10177	17605	Continuing	Continuing

A. Mission Description and Budget Item Justification: This program element provides night vision/reconnaissance, surveillance and target acquisition technologies required for U. S. defense forces to engage enemy forces twenty-four hours a day under conditions of degraded visibility due to darkness, adverse weather, battlefield obscurants, foliage and man-made structures. These developments and improvements to high performance night vision electro-optics, radar, laser, and thermal systems and integration of related multi-sensor suites will enable near to long range target acquisition, identification and engagement to include significant fratricide reduction, which will improve battlefield command and control in "around-the-clock" combat operations.

Project L67 focuses on night vision electro-optical, laser, and other target identification and location equipment for a variety of Future Combat System of Systems (FCS) Units of Action/Employment and Future Force soldiers. This project includes the enhanced night vision goggle, modular HTI multi-function laser activities, and thermal upgrades to include an uncooled medium thermal weapon sight.

Project L70 focuses on night vision, reconnaissance, surveillance and target acquisition (RSTA) sensor and suites of sensors to provide well-defined surveillance and targeting capabilities for a variety of Current, Modular, Future Combat System of Systems (FCS) and Future Force platforms. This project includes: System Development and Demonstration of the Thermal Imaging Engine (transitioned from an Advanced Technology Objective); night vision sensor acquisition support of FCS Unattended Ground Sensors and ASTAMIDS; development of a Standard Ground Station for Persistent Surveillance Sensors (RAID and PTDS). Future activity initiates Gunshot Detection and Persistent Surveillance System (PSS)/Rapid Aerostat Initial Deployment (RAID) program of record (PORs).

Project 75 focuses on development of Profiler Block II enhanced capabilities for meteorological measurement sensors and data. Improvements will reduce the footprint (less soldiers/vehicles) and complexity of the system, improve performance (accuracy), improve survivability, connectivity, no balloon sensor, multiple initialization data, terrain visualization and on-the-move capability. The improved MET message data will increase lethality by enabling artillery a greater probability of first round hit with indirect fire systems.

Project L76 focuses on the engineering development of technologies for insertion into Laser Target Locators and Laser Designators to improve overall performance of those systems and reduce weight. Technologies developed under this project will benefit the Lightweight Laser Designator Rangefinder (LLDR, AN/PED-1), the Mark VII-E Laser Target Locator, and future programs based on emerging Army requirements. Advanced, cooled, infrared imaging focal plane arrays are now available which, when applied to LLDR, will provide much greater range performance in a package of similar size. With an associated optical redesign, greater LLDR imaging performance can be achieved with

an overall reduction in weight. This project will also integrate the next generation uncooled, 17 micron pixel-pitch FLIRs being developed for the Thermal Weapon Sight program into the Mark VII-E/LTLM, improving its imaging performance with no impact on its weight. New laser designator technology has been developed which will reduce laser designator weight by close to 50% and cut battery usage by a factor of 10. Further reductions can be gained by reducing laser designator output energy levels below currently accepted standards, which initial modeling and testing indicate will not compromise performance of laser guided munitions. A primary focus of this project will be to perform sufficient live-fire and captive-carry range tests over a wide variety of environmental conditions with all current and future laser guided munitions to build the necessary confidence that reduced designator energy levels will not adversely impact the mission. In addition, this line will support improved accuracy (reduced target location error) in support of coordinate seeking weapons, such as JDAM and Excalibur.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE
5 - System Development and Demonstration	**0604710A - Night Vision Systems - Eng Dev**

B. Program Change Summary	FY 2008	FY 2009	FY 2010
Previous President's Budget (FY 2009)	47317	44508	37892
Current BES/President's Budget (FY 2010)	48826	116037	55410
Total Adjustments	1509	71529	17518
Congressional Program Reductions		-171	
Congressional Rescissions			
Congressional Increases		71700	
Reprogrammings	2834		
SBIR/STTR Transfer	-1325		
Adjustments to Budget Years			17518

Change Summary Explanation:
FY 2009-Congressional Adds - $2.8M for Common Remote Stabilization System (CRS3) in DL70, $2.4M for Soldier Worn Gunshot Detection System in DL67 and $2M for Auto Aim Point Targeting Tech with Enhanced Imaging in DL76. Congressional increases also includes the anticipated Overseas Contingency Operations (OCO) increase of $64.5 million to support Heterogeneous Airborne Reconnaissance team system development ($36 million), Beyond Line of Sight RDA Seismic UGS development ($6 million) and Airborne Wireless Mesh development ($22.5 million).
FY 2010 increase in Project L67 and L76 focus on improvements to meteorological measurement capabilities, integration of related multi-sensors suites to enable immediate improvements in near to long-range target acquistion and engagement, as well as improved battlefield command and control in "around-the-clock" combat operations.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - System Development and Demonstration	**0604710A - Night Vision Systems - Eng Dev**	**L67**

COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
L67 SOLDIER NIGHT VISION DEVICES	15750	30014	24637	Continuing	Continuing

A. Mission Description and Budget Item Justification: This project develops, improves and miniaturizes high performance night vision electro-optics, thermal and laser systems. It also provides for systems integration of related multi-sensor suites to enable near to long-range target acquisition and engagement as well as improved battlefield command and control in around-the-clock combat operations. It focuses on technology that can bring improvements to the dismounted Soldiers' equipment. This project develops or enhances equipment that provides the individual Soldier's day/night situational awareness and individual targeting capability, sniper fire detection and location capability, and integrates improved target location and self-location capability to eliminate friendly fire incidents. Enhanced Night Vision Goggle (Digital) ENVG(D) is a head/helmet mounted night vision system for the individual Soldier. The system will use both image intensifier and uncooled thermal technology to provide a multi-spectral image to the Soldier. Other efforts include a Soldier-borne gunfire detection system to determine location of sniper gunfire and the development of Sense Through The Wall (STTW) technology giving Soldiers the ability to detect threats through walls during Military Operations in Urban Terrain (MOUT). Also developing a Fused Weapon Sight (FWS) with fused electro-optical performance, and developing focal plane and high resolution micro-display technology increasing product resolution, range, and imaging performance.

Accomplishments/Planned Program:	FY 2008	FY 2009	FY 2010
Continue development of next generation Enhanced Night Vision Goggles (Digital) ENVG(D). The Digital ENVG will provide Soldiers the ability to use both image intensifier and uncooled thermal technologies during day, night, and obscured battlefield conditions.	4614	10152	4953
Continue development of lightweight multi-purpose laser with a nonlethal method of warning a vehicle operator or gaining their attention beyond 75 meters and identify friend or foe (IFF).	3000	1928	2477
Continue development of Sense Through The Wall (STTW), which provides dismounted Soldiers with the capability to detect and locate threats through walls during Military Operations on Urban Terrain (MOUT).	3153	600	742
Continue the development of the Fused Weapon Sight (FWS), which is a passive fused electro-optical sight.	200		4954
Initiate the development of enhanced aiming capabilities which provides weapon sight reticle-in-goggle display for rapid target acquisition, passive aiming, and offensive operations		2000	
Continue the development, testing and evaluation of improved Focal Plane Arrays (FPA), with larger array sizes, improved sensitivity, clarity and range. Also develop next generation FPA with smaller, 12 micron, pitch.	3834	7478	5567
Continue the development of sniper fire detection and location systems, using portable sensors on Soldiers to locate gunfire.	949	3161	2972
Develop laser defense capabilities for sniper detection/laser warning system with the ability to "see" threat optics in order to locate enemy snipers.		2428	2972
Initate developments to improve range acceleration, reduced operating temperature and extended laser life cycle for laser devices.		1382	
Small Business Innovative Research/Small Business Technology Transfer Programs.		885	

B. Other Program Funding Summary	FY 2008	FY 2009	FY 2010	To Compl	Total Cost
Helmet Mounted Enhanced Vision Devices (K36400) OPA2	469596	396214	341007	Continuing	Continuing
Thermal Weapon Sight (TWS) (K22900) OPA2	379882	435637	338237	Continuing	Continuing
Sniper Night Sight (K41500) OPA2	20598	18193	14218	Continuing	Continuing
Multi-Function Aiming Light (MFAL) (K35000) OPA2	70984	28885	26123	Continuing	Continuing
Sense Throught The Wall (STTW) (KA2300) OPA2			25352	Continuing	Continuing

Comment:

C. Acquisition Strategy The various developmental programs in this project will continue to exercise competitively awarded contracts using best value source selection procedures.

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604710A - Night Vision Systems - Eng Dev

PROJECT
L67

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Enhanced Night Vision Goggles (Digital) ENVG(D)	MIPR	CACI Technologies, Chantilly VA	16676	300	2Q	300	1Q			Cont.	Cont.	
Enhanced Night Vision Goggles (Digital) ENVG	MIPR	BAE Systems, Lexington MA		739	2Q	4633	1-3Q				5372	
Enhanced Night Vision Goggles (Digital) ENVG	MIPR	DRS, Dallas TX		1868	2Q	1500	1Q				3368	
Enhanced Night Vision Goggles (Digital) ENVG	C/FP	Penn State, University Park PA		1091	2Q						1091	
Enhanced Night Vision Goggles (Digital) ENVG	MIPR	E-OIR, Virginia				2600	2Q				2600	
Enhanced Night Vision Goggles (Digital) ENVG (D)	Various	TBD				1700	2-3Q	4253	1-2Q	Cont.	Cont.	
Multi-purpose Laser	C/FP	Fibertek, Herndon VA		1000	3Q					Cont.	Cont.	
Multi-purpose Laser	MIPR	TBD		2000	4Q	982	1-3Q	1239	1-2Q		4221	
Multi-purpose Laser	MIPR	Laser Devices, CA				353	1Q				353	
Sense Through The Wall (STTW)	MIPR	CERDEC - Fort Monmouth, NJ	2444	2449	1Q					Cont.	Cont.	
Sense Through The Wall (STTW)	C/FP	Cyterra, Woburn, MA		458	2Q						458	
Sense Through The Wall (STTW)	C/FP	Raytheon, El Segundo CA		246	3Q						246	
Sense Through The Wall (STTW)	MIPR	TBD				565	4Q	668	2Q		1233	
Fused Weapon Sight (FWS)	C/FP	CACI, Technologies, Chantilly VA		200	3Q					Cont.	Cont.	
Fused Weapon Sight (FWS)	MIPR	TBD						4211	1-2Q	Cont.	Cont.	
Laser Detection/Laser Warning Device	MIPR	TBD				2842	1-3Q	1783	1-2Q	Cont.	Cont.	
Enhanced Aim Display	MIPR	TBD				2000	3Q			Cont.	Cont.	
Focal Plane Arrays (FPA)	MIPR	DOI - Ft Huachuca, AZ	17543	3834	1-2Q	4337	1-2Q	5567	1-2Q	Cont.	Cont.	

Focal Plane Arrays (FPA)	MIPR	CACI, Technologies, Chantilly VA				3642	3Q				3642	
Sniper Fire Detection and Location Technology Development	MIPR	ARDEC, Picatinny Arsenal, NJ	7576	280	1Q					Cont.	Cont.	
Sniper Fire Detection and Location Technology	C/FP	Planning Systems, Inc . Reston. VA		668	3Q						668	
Sniper Fire Detection and Location Technology	Various	TBD				2428	1-2Q	1783	1-2Q		4211	
STORM Diode		TBD				1382	3Q				1382	
Subtotal:			44239	15133		29264		19504		Cont.	Cont.	

II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Matrix Support			604			885	1-3Q			Cont.	Cont.	
Subtotal:			604			885				Cont.	Cont.	

III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Government Test Support Activity	MIPR	Various Activities	10491	617	1-2Q	1459	1-3Q	5133	1-2Q	Cont.	Cont.	
Subtotal:			10491	617		1459		5133		Cont.	Cont.	

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Misaligned Congressional Add Funding						-1594					-1594	

ARMY RDT&E COST ANALYSIS (R3)									May 2009	
BUDGET ACTIVITY **5 - System Development and Demonstration**	PE NUMBER AND TITLE **0604710A - Night Vision Systems - Eng Dev**								PROJECT **L67**	
Subtotal:				-1594					-1594	
Project Total Cost:	**55334**	**15750**		**30014**		**24637**		**Cont.**	**Cont.**	

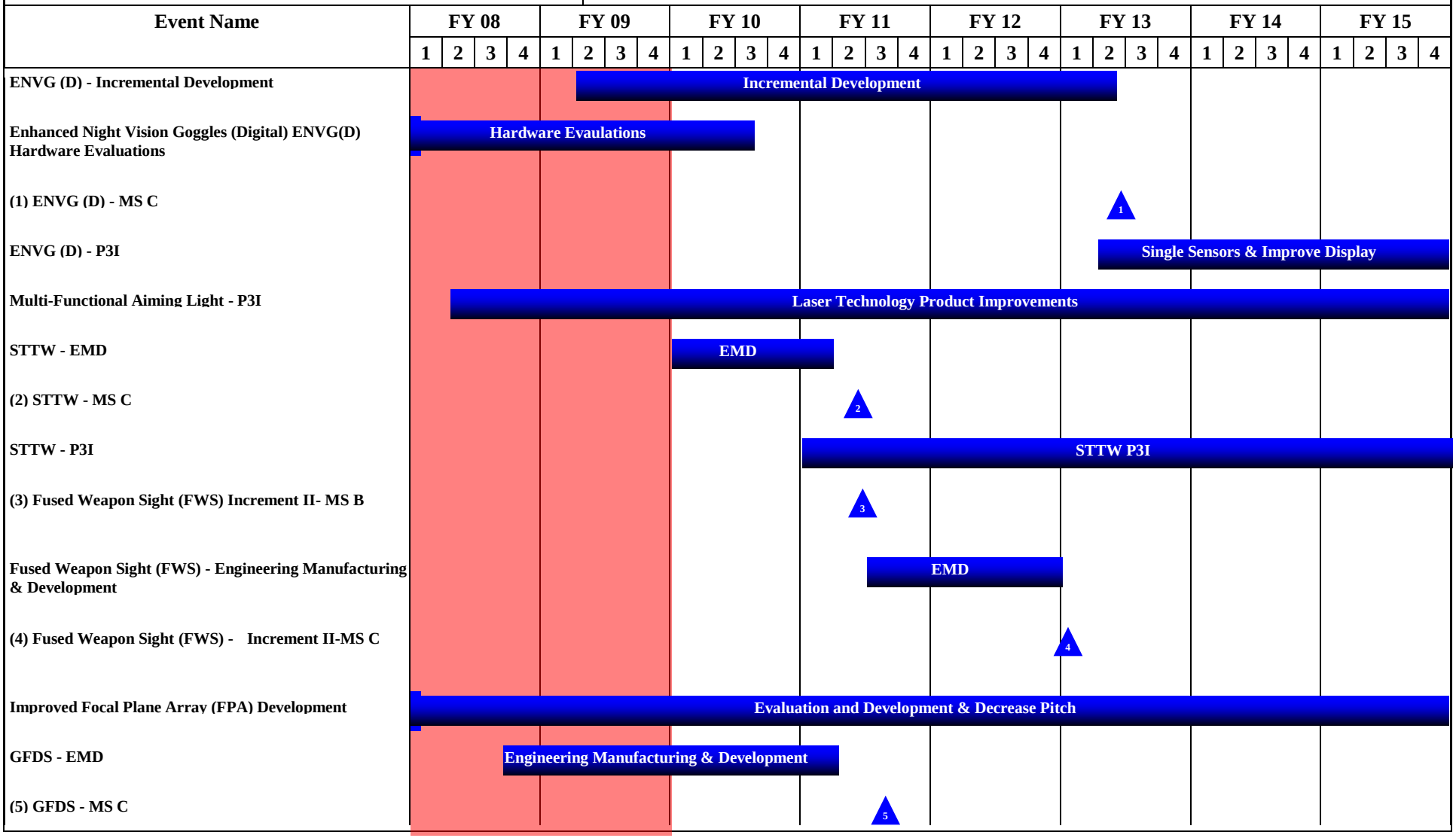
Schedule Profile (R4 Exhibit)

May 2009

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604710A - Night Vision Systems - Eng Dev

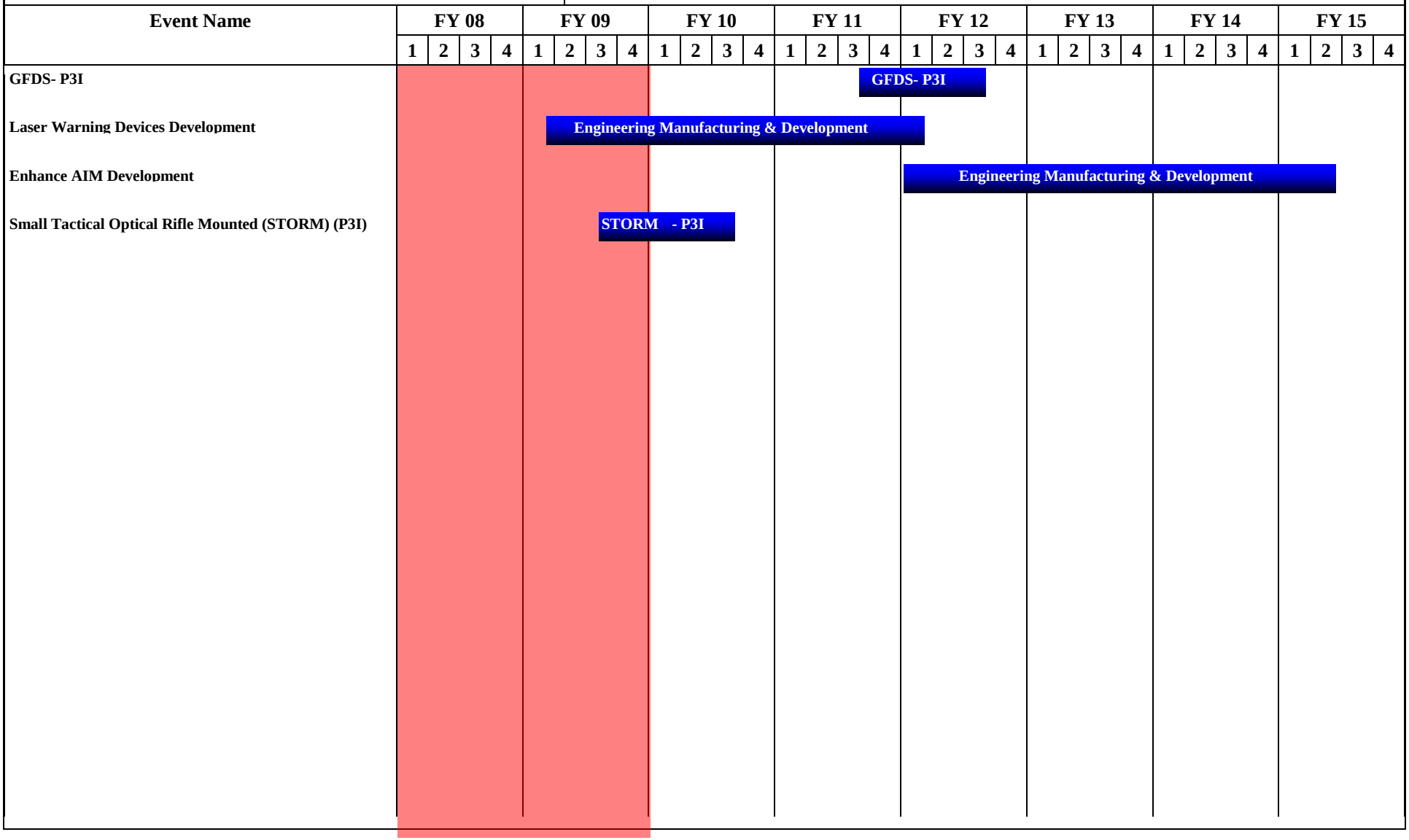
PROJECT
L67



Schedule Profile (R4 Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - System Development and Demonstration	**0604710A - Night Vision Systems - Eng Dev**	**L67**



Schedule Detail (R4a Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - System Development and Demonstration	**0604710A - Night Vision Systems - Eng Dev**	**L67**

Schedule Detail	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
ENVG (D) - Incremental Development		2Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 2Q		
Enhanced Night Vision Goggles (Digital) ENVG(D) Hardware Evaluations	1Q - 4Q	1Q - 4Q	1Q - 3Q					
ENVG (D) - MS C						2Q		
ENVG (D) - P3I						2Q - 4Q	1Q - 4Q	1Q - 4Q
Multi-Functional Aiming Light - P3I	2Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q
STTW - EMD			1Q - 4Q	1Q				
STTW - MS C				2Q				
STTW - P3I				1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q
Fused Weapon Sight (FWS) Increment II- MS B				2Q				
Fused Weapon Sight (FWS) - Engineering Manufacturing & Development				2Q - 4Q	1Q - 4Q			
Fused Weapon Sight (FWS) - Increment II-MS C						1Q		
Improved Focal Plane Array (FPA) Development	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 4Q
GFDS - EMD	3Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 2Q				
GFDS - MS C				3Q				
GFDS- P3I				3Q - 4Q	1Q - 3Q			
Laser Warning Devices Development		1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q			
Enhance AIM Development					1Q - 4Q	1Q - 4Q	1Q - 4Q	1Q - 2Q
Small Tactical Optical Rifle Mounted (STORM) (P3I)		3Q - 4Q	1Q - 3Q					

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - System Development and Demonstration	**0604710A - Night Vision Systems - Eng Dev**	**L70**

COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
L70 NIGHT VISION DEV ED	14831	75846	7736	Continuing	Continuing

A. Mission Description and Budget Item Justification: This project performs System Development and Demonstration (SDD) on high performance night vision, Reconnaissance, Surveillance, and Target Acquisition (RSTA) systems and other related systems that allow forces to locate and track enemy units in day, night, and all battlefield conditions, and through natural and man-made structures and obscurants. It also develops and integrates suites of these sensors to provide well-defined surveillance and targeting capabilities, as well as architectures for these sensors to communicate automatically. The focus is on meeting the requisite night vision and RSTA capabilities required for evolving Current Force, Modular Force, and Future Force systems.

The project transitions Advanced Thermal Imaging Technology from an Advanced Technology Objective to the development of a thermal engine intended to be common among all US Army FLIR sensor systems. This program will initiate and continue the development and qualification of the thermal Engine to meet schedule requirements of Next Gen FLIR (AN/ZSQ-2/Q-3) aviation system and Army Combat and reconnaissance systems. The thermal imaging engine provides Mid Wave Infrared and Long Wave Infrared digital video. This technology enhances the war-fighters' survivability and lethality through increased identification range performance when used in current sensor packages, while enabling detection of difficult or obscured target as well as faster threat detection through automated processes. The thermal imagining engine can also be used to enhance mobility by maintaining current range perform in significantly smaller and lighter sensor packages.

This project continues Program Office technical support of the FCS Unattended Ground Sensors (UGS) hardware and software development, demonstration and test for a family of UGS systems for Intelligence, Surveillance and Reconnaissance (ISR). This will provide FCS and the Army a networked Unattended Ground Sensor capability for ISR and physical security.

This project develops the Standard Ground Station (SGS) for PM NV/RSTA sensor systems. Leveraging the success in theater of the Persistent Surveillance and Dissemination System of Systems (PSDS2) Quick Response Capability (QRC), this effort takes the 3D visualization capability from PSDS2 and applies it to the Operator's station for RAID tower systems, aerostats and other RSTA Sensor systems. This effort was prioritized and performed on an accelerated schedule to support fielding in October 2008 as part of the RAID tower systems in response to the Base Expeditionary Target and Surveillance Systems - Combined (BETSS-C) JUONS. This SGS improves the effectiveness of RSTA systems by combining sensor videos, sensor cues and Battle Command information into a geo-registered 3D visualization of the terrain.

This project develops, integrates, and tests an upgrade to the Long Range Advanced Scout Surveillance System (LRAS3) system, making it capable of digitizing, compressing and transmitting target information and imagery across the battlefield Network using Standard Army Radios. This enables the Current Force and Modular Force with the ability to cross-cue sensors that are linked to the network as well as share/exploit imagery and data from networked sensors on the battlefield.

Common Remote Stabilized Sensor System (CRS3) is a remote operator's station and a stabilized pan and tilt for the LRAS3 and FS3 systems, allowing the effective employment of these sights while protected and with the vehicle moving, significantly increasing survivability and effectiveness. This is a Congressional plus up which is a follow on to efforts funded in FY03 with DL76 funds.

FY 2010 funding supports continuation of efforts for: Third Generation FLIR development.

FY 2009 Overseas Contingency Operations (OCO) Request - At the direction of the OSD Intelligence, Surveillance and Reconnaissance (ISR) Task Force (TF), the Army is sponsoring: 1. The development of Heterogeneous Airborne Reconnaissance Technology (HART). This HART effort will develop a platform neutral system capable of tasking, coordinating and managing semi-autonomously underutilized sensor capability on multiple platforms and provide a logically organized storage system for utilization by the current and future ISR network. The effort will also develop a system for evaluation and use by deployed forces at the Brigade level. The developed system will provide FMV geo-registration capability, FMV and intelligence exploitation and storage tools, and semi-autonomous sensor management. 2. The development of an airborne wireless mesh capability. It will provide a high capacity (up to three megabit per second), two-way, secure Information Processing (IP) based network between ground forces and aerial assets for rapid integration of ISR sensors and servers, enabling real time access to ISR information across the battlefield. 3. The development of Beyond Line of Sight for the Remote Detection of Activity (RDA) Seismic Unattended Ground Sensors (UGS). RDA UGS will be employed by Soldiers and Marines for force protection and situational awareness. RDA UGS will provide a low cost and long endurance (two to four month battery life) capability to provide seismic detection of vehicles and human footsteps for monitoring of critical operational areas and extended perimeters at forward operating bases.

Accomplishments/Planned Program:	FY 2008	FY 2009	FY 2010
FY 08 & 09 Base: Unattended Ground Sensors (UGS) - Develop ISR, Chemical, Biological, Radiological, Nuclear (CBRN) and Urban UGS for FCS and other Army customers. Funds continue spiral integration efforts to include networked sensor systems capabilities. Demonstrate viability and technical feasibility of employing a networked Unattended Ground Sensors (UGS) system from various delivery platforms. Current focus is in support of the FCS Spin-Out 1 for the Infantry BCT. FY07 and FY08 supported successful program CDR and early demonstration and evaluation of FCS Tactical and Urban UGS. FY09 will continue providing support for the FCS UGS SDD effort and FCS IBCT Spin-Out 1 activities including addressing improvements found from early field evaluations as well as migration to JTRS.	575	510	
FY08, 09, & 10 Base: Thermal Imaging: System Development and Demonstration (SDD) of Thermal Imaging Engine. Upon MS B approval in FY08, initiated SDD efforts. This activity leverages Substrate and Optical materials efforts funded in FY08 through project D131. FY08 and FY09 funds the development of the Thermal Imaging Engine for the Next Gen FLIR (AN/ZSQ-2/Q-3) aviation systems and Army Combat and reconnaissance systems, and fabricates 16 prototypes. Contractor qualification Testing and support for system integration activities are conducted with FY10 funding. FY11 will complete Qualification Testing; support system-level test activities, complete production preparation activities, and prepare for MS C, scheduled for 2QFY12.	6318	7226	7736
FY 08 & 09 Base: Development of an advanced payload technology for manned and unmanned systems in accordance with TRADOC priorities for aerial systems in the Current and Future Force. This effort provides enhanced EO/IR/LD technology for ER/MP, ARH, Kiowa Warrior and FCS. This effort is a joint program with PM Close Combat Support (CCS), expanding the capability of the Airborne Surveillance Target Acquisition and Minefield Detection System (ASTAMIDS) by adding the designator. FY08 supported conduct of Contractor Developmental Testing. FY09 supports the management and conduct of Government Developmental Testing.	1047	481	
FY 08 Base: LRAS3 Netted Sensor - Development, integration, and testing of hardware and software that supports digital compression, transmission and display of imagery and data to/from the battlefield network. This provides the Current Force and Modular Force with the ability to cross-cue sensors that are linked to the network as well as share/exploit imagery and data from networked sensors on the battlefield. FY08 completed development, integration and testing of hardware and software, delivering 8 prototype units. This	705		

capability transitions into the LRAS3 Production program as a P31 effort.			
FY 08 Base: The Standard Ground Station (SGS) efforts are an evolution from the PSDS2 system, integrating the ability to directly control the RAID sensor. With FY08 funds the SGS was developed and integrated with the RAID tower; Capabilities and Limitations (C&L) tested and evaluated by ATEC and fielded under a Urgent Material Release (UMR) in October 2008. RAID towers are being fielded with this capability, funded with FY08 Supplemental funds for BETSS-C. Integration with other RSTA sensor systems is planned to be funded within those sensor system efforts (PTDS for example).	6186		
FY 09 Base: Common Remote Stabilized Sensor System (CRS3). CRS3 FY09 will conduct the hardware environmental qualification testing to prepare the product for transition to production. The Armored Knight Program will integrate the CRS3 capability into their vehicles.		2800	
FY 09 OCO: Heterogeneous Airborne Reconnaissance Team (HART) system development		36000	
FY 09 OCO: Beyond Line of Sight RDA Seismic UGS development.		6000	
FY 09 OCO: Airborne Wireless Mesh development		22500	
Small Business Innovative Research / Small Business Technology Transfer Program		329	
Total	14831	75846	7736

B. Other Program Funding Summary	FY 2008	FY 2009	FY 2010	To Compl	Total Cost
Night Vision Advanced Development PE 0603774A	3432	2580		Continuing	Continuing
K38300 Long Range Advanced Scout Surveillance System (LRAS3) OPA2	158411	210766	163634		799582
Future Combat System, G86100 WTCV	80932	154583	153594	Continuing	Continuing
Advanced TUAV Payloads B00302 OPA2	42135	105991			148126
Advanced UAS Payloads A00020 APA			97702	Continuing	Continuing
Next Gen FLIR for Army Special Operations Aviation Fleet - (AN/ZSQ-2/3): RDTE			9138		12956
Next Gen FLIR for Army Special Operations Aviation Fleet - (AN/ZSQ-2/3): PROC				Continuing	Continuing

Comment:

C. Acquisition Strategy The development programs in this project are currently based on competitive awards and under cost reimbursement type contracts. The FY09 Congressional increase will be a sole source award.

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604710A - Night Vision Systems - Eng Dev

PROJECT
L70

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
DVE Development	C/CPIF	Various	21831								21831	
Modular HTI Multifunction Laser Activities	C/CP	Insight Technologies, Londonderry, NH & DRS Technologies, Torrence, CA	3868								3868	
LLDR RAPT	C/CP	Various	4253								4253	
Light Forward Observer Optics	C/CP	Various	1258								1258	
Thermal Upgrades for DVE (Dual wavelength) and competition	C/CP	Kaiser Electric San Diego, CA, Various	3608								3608	
LLDR Advanced Demonstration System	C/CP	Litton Laser, Apopka, FL	2556								2556	
Sensor Architecture/Digital RSTA/SLP	C/CPIF & C/CP	Various	11962								11962	
Various Prototypes and Studies	C/CPIF	Various	2947								2947	
Thermal Upgrades for TWS (target location)	C/CP	Raytheon, El Segundo, CA, Various	5811								5811	
HTI Laser Trade Studies	C/CP	Various	1020								1020	
Enhanced NVG Analysis & Design (TX to DL67)	C/CP	Various	4782								4782	
HTI Laser MFS3 design and prototype activities	C/CPIF	Raytheon, Dallas,TX	565								565	
MANTECH Focal Plane Array and optics	C/CP	Raytheon, Dallas, TX	1500								1500	
Digital MELIOS Design & Fabrication	C/FP	Litton Lasers, Inc.	1000								1000	
AN/TMQ-41 Trade Studies and related activities	C/CP	Various	1232								1232	
Image Fusion for DVE	C/CP	Raytheon, Dallas, TX	1274								1274	
Digital RSTA SDD	C/CP	Booz-Allen Hamilton,	2190								2190	

		Tysons Corner, VA											
CIRISS Efforts	C/CP	Various	1500									1500	
LLDR Vehicle applications	C/CP	Litton Laser, Apopka, FL Various	3487									3487	
FLIR develop/integrate	Various	Various	1731									1731	
Uncooled B-Kit	Various	Various	10354									10354	
EO/IR/LD UAV Payloads	C/CP	Northrop Grumman, Melborne, FL	4087	1000	2Q							5087	
LLDR EMD	C/CP	Litton Lasers, Apopka, FL	19873									19873	
GMTI Radar	C/FP & CP	General Atomics	2792									2792	
UGS	CP/FFP	Various	708									708	
FCS UGS / UGS	C/CP	FCS Boeing/Textron/Various /TBD	5099									5099	
PSDS2 Efforts	C/CPFF	Various	11751									11751	
LRAS3 Netted Sensor	SS/CP	Raytheon, McKinney Texas	8815	250	4Q							9065	
DVD (DVE Light)	C/CP	CACI	572									572	
Thermal Imaging	C/CPIF	Various	1532									1532	
FY 08, 09 & 10 Base: Thermal Imaging	C/CPIF	Raytheon, Santa Barbara, CA		4637	4Q	5386	3Q	5758	1-2Q	Cont.	Cont.		
SGS/RAID	C/CP	Sarnoff, Princeton, NJ		4913	2Q							4913	
FY 09 Base: CRS3	SS/CP	DRS, St. Louis, MO				2800	2-4Q					2800	
SBIR/STTR						329						329	
FY 09 OCO: Heterogeneous Airborne Reconnaissance Team (HART) system development	TBD	TBD				36000						36000	
FY 09 OCO: Beyond Line of Sight RDA Seismic UGS development.	TBD	TBD				6000						6000	
FY 09 OCO: Airborne Wireless	TBD	TBD				22500						22500	

Mesh development												
Subtotal:			143958	10800		73015		5758		Cont.	Cont.	

II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Matrix Support	MIPR	Various	19904							Cont.	Cont.	
Matrix Support	MIPR	NVESD	720								720	
Matrix Support	MIPR	TRADOC	400								400	
Matrix Support	MIPR	Various	231								231	
Thermal Imaging Support	MIPR	Various		1681	1-2Q	1454	1-2Q	1610	1-2Q	Cont.	Cont.	
EO/IR/LD(ASTAMIDS) Support	MIPR	Various		47	1-2Q	300	1-2Q				347	
LRAS3 Netted Sensor Support	MIPR	Various		500	2-4Q						500	
UGS Matrix	MIPR	Various		403	1-2Q	490	1-2Q				893	
Subtotal:			21255	2631		2244		1610		Cont.	Cont.	

III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
DT/IOT&E*	MIPR	ATEC	8769								8769	
Other Test Support*	MIPR	Various	6351							Cont.	6351	
SGS/RAID C&L	MIPR	ATEC/DTC		730	2-4Q						730	
Subtotal:			15120	730						Cont.	15850	

Remarks: * Includes PSDS2, UGS, STTW, 3GF and other sensor test and evaluation activities.
Includes PSDS2 and FCS UGS test and evaluation.

IV. Management Services	Contract	Performing Activity &	Total	FY 2008	FY 2008	FY 2009	FY 2009	FY 2010	FY 2010	Cost To	Total	Target

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604710A - Night Vision Systems - Eng Dev

PROJECT
L70

	Method & Type	Location	PYs Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Complete	Cost	Value of Contract
Project Management	In house support	PM, NV/RSTA, Fort Belvoir, VA & Ft. Monmouth, NJ	6359	172	1-4Q	587	1-4Q	368	1-4Q	Cont.	Cont.	
SGS Management	C/T&M	BAH		498	2Q						498	
Subtotal:			6359	670		587		368		Cont.	Cont.	
Project Total Cost:			**186692**	**14831**		**75846**		**7736**		**Cont.**	**Cont.**	

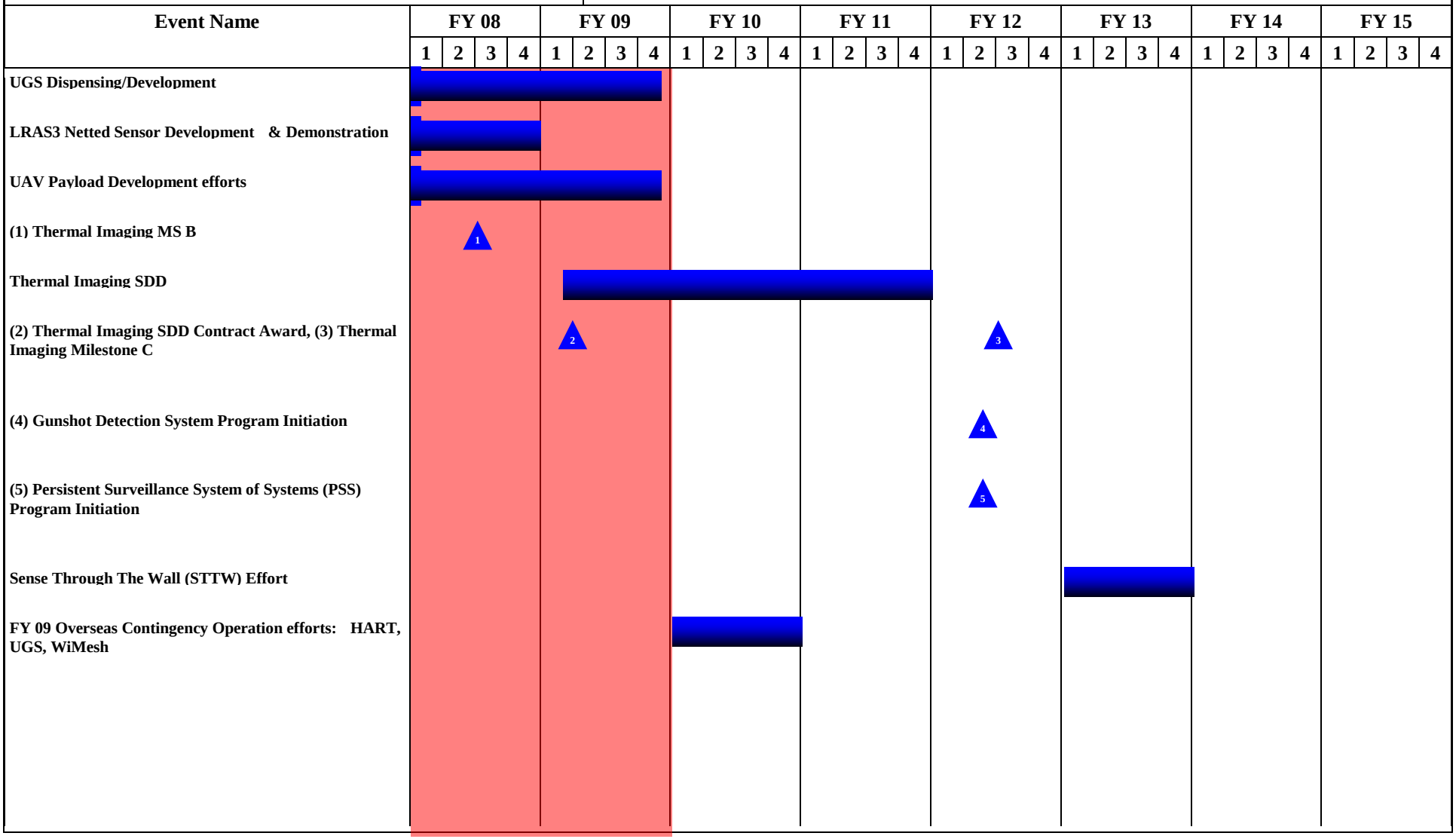
Schedule Profile (R4 Exhibit)

May 2009

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604710A - Night Vision Systems - Eng Dev

PROJECT
L70



Schedule Detail (R4a Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - System Development and Demonstration	**0604710A - Night Vision Systems - Eng Dev**	**L70**

Schedule Detail	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
UGS Dispensing/Development	1Q - 4Q	1Q - 4Q						
LRAS3 Netted Sensor Development & Demonstration	1Q - 4Q							
UAV Payload Development efforts	1Q - 4Q	1Q - 4Q						
Thermal Imaging MS B	3Q - 2Q							
Thermal Imaging SDD		1Q - 4Q	1Q - 4Q	1Q - 4Q				
Thermal Imaging SDD Contract Award		1Q						
Thermal Imaging Milestone C					2Q			
Gunshot Detection System Program Initiation					2Q			
Persistent Surveillance System of Systems (PSS) Program Initiation					2Q			
Close Surveillance Support System (CS3) MS B					1Q			
Close Surveillance Support System (CS3) Effort					1Q - 4Q	1Q - 3Q		
Close Surveillance Support System (CS3) MS C						4Q		
Sense Through The Wall (STTW) Effort						1Q - 4Q		
FY 09 Overseas Contingency Operation efforts: HART, UGS, WiMesh			1Q - 4Q					

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - System Development and Demonstration	**0604710A - Night Vision Systems - Eng Dev**	**L75**

COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
L75 Profiler			5432	Continuing	Continuing

A. Mission Description and Budget Item Justification: The AN/TMQ-52 Meteorological Measuring Set-Profiler (MMS-P) is a replacement for the current Meteorological Measuring Set (MMS), AN/TMQ-41. Profiler uses a suite of meteorological (MET) sensors and MET data from communication satellites along with an advanced weather model to provide highly accurate MET data covering an operational area of 500 kilometers with a tested range of 60 kilometers. The current MMS relies upon a balloon-borne radiosonde to measure and transmit MET conditions such as wind speed, wind direction, temperature, pressure and humidity. It is considered accurate to 20 kilometers from the balloon launch site and cannot provide target area MET data. Profiler provides the same MET information MMS does and adds rate of precipitation, visibility, cloud height and cloud ceiling. All of these are required for precise targeting and terminal guidance. Profiler uses this information to build a four-dimensional MET model (height, width, depth and time) that includes terrain effects. By providing more accurate MET messages, Profiler will enable the artillery to have a greater probability of a first round hit with indirect fire systems. The new capabilities will increase the lethality of field artillery systems such as Multiple Launch Rocket Systems (MLRS), Paladin, and self-propelled or towed howitzers. Profiler Block II will increase MET message accuracy in addition to reducing the MET section footprint from three HMMWVs and two trailers with a crew of six, to one HMMWV and two soldiers with "on-the-move" capability. The Army will realize a significant logistics savings with the improved configuration.

Accomplishments/Planned Program:	FY 2008	FY 2009	FY 2010
Initiate Block II MET sensor effort for balloon/radiosonde alternatives.			1150
Design software modifications for accuracy improvements.			2575
Conduct migration effort to a common operating system hosted on one computer.			932
Reduction of Physical Configuration.			775
Total			5432

B. Other Program Funding Summary	FY 2008	FY 2009	FY 2010	To Compl	Total Cost
Profiler K27900	82769	10590	4766		98125

Comment:

C. Acquisition Strategy The Profiler Block II program begins in FY 2010 by conducting meteorological sensor studies for balloon/radiosonde alternatives. Software analysis and development for accuracy improvements will be conducted. Software will be consolidated from four computers in Block I to one computer with a common operating system. A Preliminary Design Review (PDR) will be conducted. Following a successful PDR, an EMD award of four Block II systems will be built. Testing will be completed

in FY 2012.

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604710A - Night Vision Systems - Eng Dev

PROJECT
L75

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
SDD Contract	C/CPIF	Smiths Detection, Edgewood, MD	14999								14999	14950
SDD T&M	C/T&M	Smiths Detection, Edgewood, MD	103								103	
Studies and Simulations	MIPR	Army Research Lab, White Sands Missile Range, NM	429								429	
Government Furnished Equipment	MIPR	HQCPSQ/ZJ, San Antonio, TX	120								120	
Balloon/radiosonde sensor alternatives	MIPR	Army Research Lab, White Sands Missile Range, NM						975	1-4Q		975	
Software mods for accuracy improvements	TBD	TBD						2055	1Q		2055	
Reduction of Physical Configuration	TBD	TBD						870	1Q		870	
Migration to common operating system	TBD	TBD						650	1-4Q		650	
Conduct Reliability, Availability, Maintainability	TBD	TBD									375	
Subtotal:			15651					4550			20576	14950

II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Matrix Support	MIPR	CECOM, Fort Monmouth NJ	2063					72	1-4Q		2211	
Sys Engr/Technical Assistance								378	1-4Q		378	
OGA	MIPR	Various	1089								1089	

Subtotal:			3152					450			3678	

III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Test Planning and Preparation	MIPR	ATEC, Various, CECOM, PRD Dir, Ft. Monmouth	942								1294	
Developmental Testing	MIPR	ATEC, Various	1049								1049	
Initial Operational Test & Evaluation	MIPR	ATEC, Various	1200								1200	
Conduct Block II Testing	MIPR	ATEC, Various									500	
Subtotal:			3191								4043	

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Project Management	In house support	PM Nav Sys/TIMS, Fort Monmouth, NJ	993					432			1425	
Subtotal:			993					432			1425	

Project Total Cost:			**22987**					**5432**			**29722**	**14950**

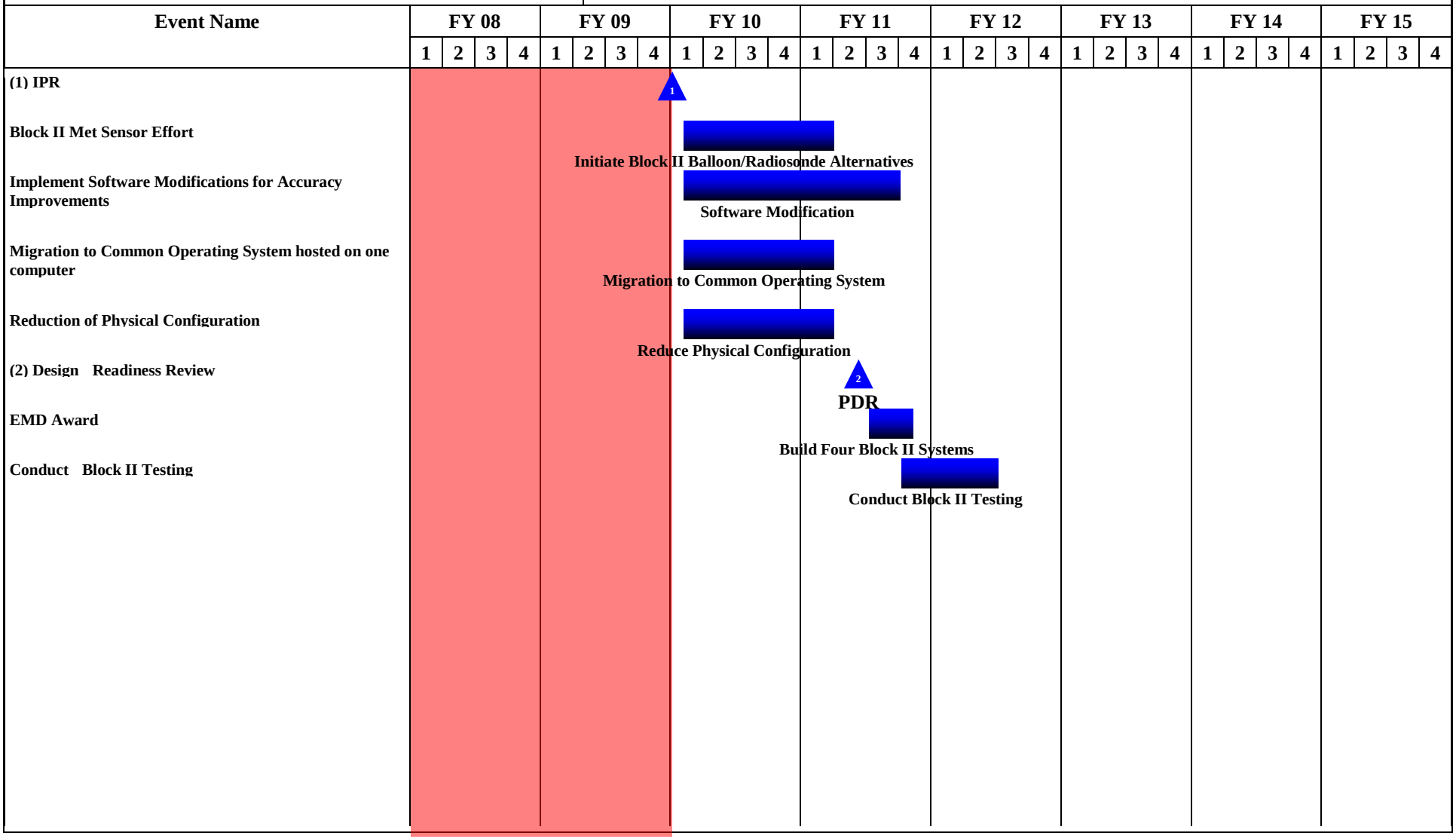
Schedule Profile (R4 Exhibit)

May 2009

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604710A - Night Vision Systems - Eng Dev

PROJECT
L75



Schedule Detail (R4a Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - System Development and Demonstration	**0604710A - Night Vision Systems - Eng Dev**	**L75**

Schedule Detail	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Milestone C: Low Rate Initial Production (LRIP) Decision								
Full Rate Production (FRP) Decision In Process Review (IPR)								
System Development and Demonstration (SDD)								
Hardware/Software (HW/SW) Development								
System Functional Demonstration (SFD)								
Software (SW) Functional Qualification Test (FQT) & Report								
Developmental Test (DT) and Report								
Logistics Demonstration								
Low Rate Initial Production (LRIP)								
Full Rate Production (FRP)								
Initial Operational Test & Evaluation (IOT&E)								
First Unit Equipped (FUE)								
Continue SDD HW/SW development phase.								
System Functional Demonstration								
MS C LRIP Decision								
SW FQT and Report.								
Conduct Developmental Test								
Low Rate Initial Production (LRIP)								
Full Rate Production								
First Unit Equipped								
IPR			1Q					
Block II Met Sensor Effort			1Q - 4Q	1Q				
Implement Software Modifications for Accuracy			1Q - 4Q	1Q - 3Q				

Improvements								
Migration to Common Operating System hosted on one computer			1Q - 4Q	1Q				
Reduction of Physical Configuration			1Q - 4Q	1Q				
Design Readiness Review				2Q				
EMD Award				3Q - 4Q				
Conduct Block II Testing				4Q	1Q - 2Q			

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - System Development and Demonstration	**0604710A - Night Vision Systems - Eng Dev**	**L76**

COST (In Thousands)		FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
L76	Dismounted Fire Support Laser Targeting Systems	18245	10177	17605	Continuing	Continuing

A. Mission Description and Budget Item Justification: This project will develop technologies for insertion into Laser Target Locators and Laser Designators to improve overall performance of those systems and reduce weight. Technologies developed under this project will benefit the Lightweight Laser Designator Rangefinder (LLDR, AN/PED-1), the Mark VII-E Laser Target Locator, and future systems (see JETS below). This project will integrate the next generation uncooled Forward Looking Infrared (FLIRs) into the Laser Target Locator Module (LTLM), improving its imaging performance with no impact on its weight. This project will initiate interface design for a reduced weight common laser designator to the next generation LTLM which will form a bridge to the JETS. In addition, this line will support improved targeting accuracy in support of coordinate seeking weapons, such as Joint Direct Attack Munition (JDAM), Small Diameter Bomb, and Excalibur. Development will primarily focus on affordable, non-magnetic, high accuracy, azimuth and vertical angle measurement (AVAM) devices with reduced size, weight and power characteristics.

The Joint Effects Targeting System (JETS) is a Joint (Army, Air Force, Navy and Marine) program to develop a lightweight set of mission equipment for the dismounted forward observer and controllers (including Joint Tactical Air Controllers). The JETS will provide the observer and controller the means to call for fire and control delivery of air, ground and naval surface fire support, using precision, near-precision and non-precision munitions and effects (both lethal and non-lethal). The JETS will consists of two subsystems: the Target Location and Designation System (TLDS) and the Target Effects Coordination System (TECS). The TLDS will provide the observer and controller the ability to conduct surveillance; acquire and accurately locate targets; designate targets for attack by laser seeking munitions; mark targets for aviation and ground based targeting systems; and transmit targeting data to the TECS. The TECS will provide access to the future joint targeting network, formats digital calls for fire and Close Air Support (CAS) 9-line requests to all joint fires platforms; will display information to the observer and controller to enable effective target engagement and integration of fires with Joint maneuver forces; and supports fire support planning functions. In order to achieve portability the total system weight of the JETS will be limited to 20 pounds. The limited weight available for JETS will likely have the effect of limiting the accuracy and target acquisition capabilities of JETS as compared to heavier dismounted systems, such as LLDR, especially in the case of TLDS.

Accomplishments/Planned Program:	FY 2008	FY 2009	FY 2010
Complete the analysis of alternatives for laser targeting systems and continue to provide LTLM Sytems Engineering and Technical Assistance (SETA).	2590	500	1100
Continue the development of Azimuth and Vertical Angle Measurement (AVAM) devices and integrate into LLDR.	15655	4000	
Product improve LTLM and develop Joint Effects Targeting System (JETS) P3I.		3455	16505
Small Business Innovative Research / Small Business Technology Transfer Program.		230	
Misaligned Congressional Add funding for Auto Aim Point Targeting Technology with Enhanced Imaging - belongs to Project L67.		1992	
Total	18245	10177	17605

B. Other Program Funding Summary	FY 2008	FY 2009	FY 2010	To Compl	Total Cost
Lightweight Laser Designator Rangefinder (LLDR) (K31100) OPA2	188984	134696	156100	Continuing	Continuing
Laser Target Locating System (LTLS) (B53800) OPA2	120304	68351	67767	Continuing	Continuing

Comment: JETS funding is also found in USAF PE 0207423F and USMC PE 0206313M and USMC PE 0206623M.

C. Acquisition Strategy The various development programs in this project will continue to exercise competitively awarded contracts using the best value source selection procedures.

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604710A - Night Vision Systems - Eng Dev

PROJECT
L76

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Analysis and Technical Evaluation	C/CP	TBD	1340	2590	3-4Q	500	3Q	1100	2Q		5530	
Azimuth and Vertical Angle Measurement (AVAM)	C/CP	Northrop Grumman, Orlando FL	1322	10218	3Q						11540	
Azimuth and Vertical Angle Measurement (AVAM)	MIPR	TBD, Funding issued to Defense Micro-Electronics Activity (DMEA) Sacramento CA		5281	2Q						5281	
Azimuth and Vertical Angle Measurement (AVAM)	MIPR	TBD, Funding issued to Defense Micro-Electronics Activity				4000	3Q				4000	
LTLM P3I & JETS Technical Development	T&M	Johns Hopkins Applied Physics Lab, Laurel MD				3455	2-3Q				3455	
Joint Effects Targeting System (JETS)	C/CP	TBD						16505	2Q		16505	
Subtotal:			2662	18089		7955		17605			46311	

II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Azimuth and Vertical Angle Measurement (AVAM)	MIPR	Booz Allen Hamilton, McLean, Virginia		50	3Q						50	
Azimuth and Vertical Angle Measurement (AVAM)	C/FP	Johns Hopkins Applied Physics Lab, Laurel MD		50	4Q						50	
Small Business Innovative Research/Small Business Technology Transfer Program						230	1Q				230	
Subtotal:				100		230					330	

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604710A - Night Vision Systems - Eng Dev

PROJECT
L76

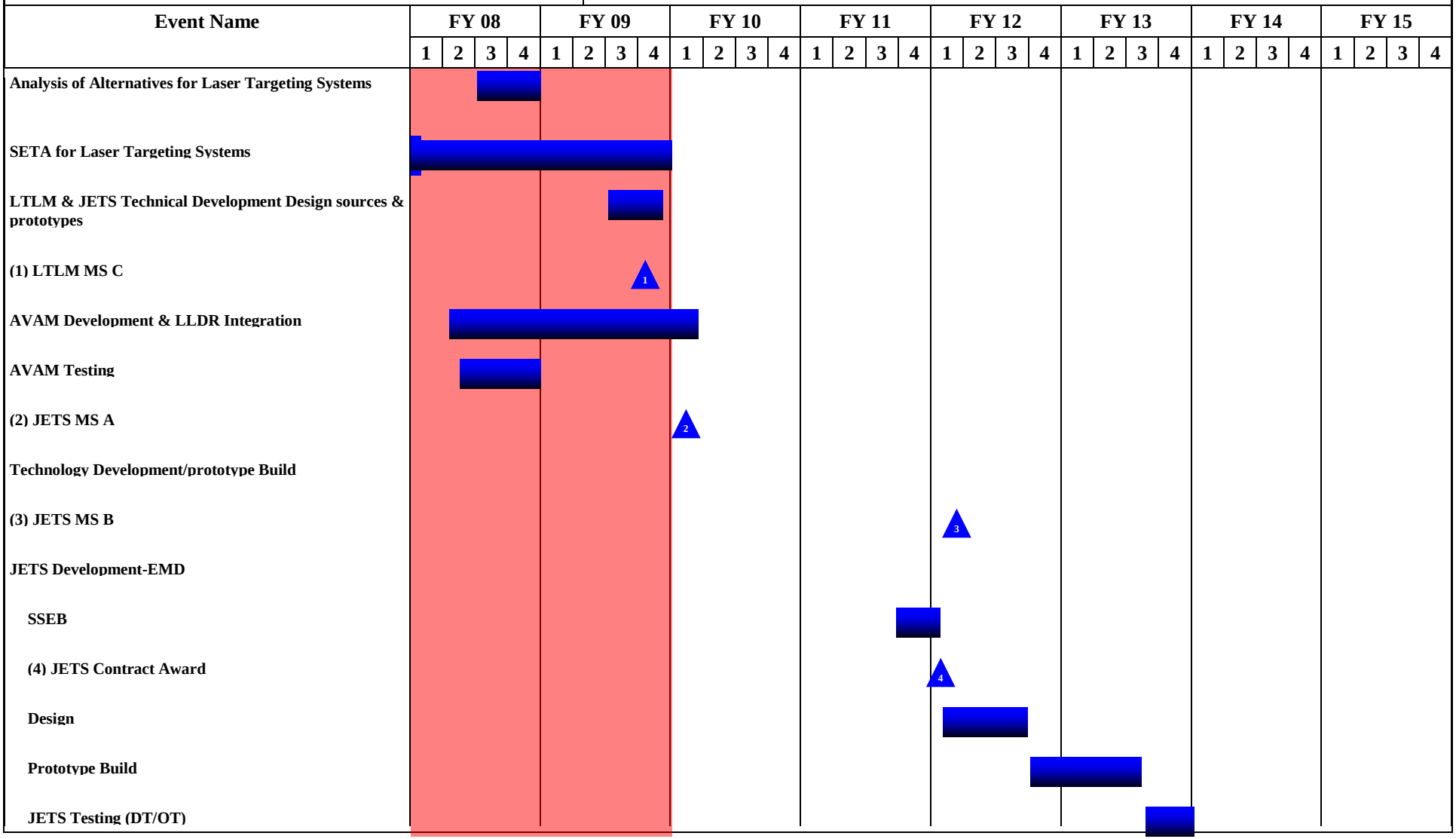
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Government Activity	MIPR	Fibertek, Herndon VA		46	2Q						46	
Government Test Support Activity	MIPR	Army Evaluation Center, Alexandria, VA		10	4Q						10	
Subtotal:				56							56	

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Misaligned Congressional Add Funding						1992					1992	
Subtotal:						1992					1992	
Project Total Cost:			**2662**	**18245**		**10177**		**17605**			**48689**	

Schedule Profile (R4 Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - System Development and Demonstration	**0604710A - Night Vision Systems - Eng Dev**	**L76**



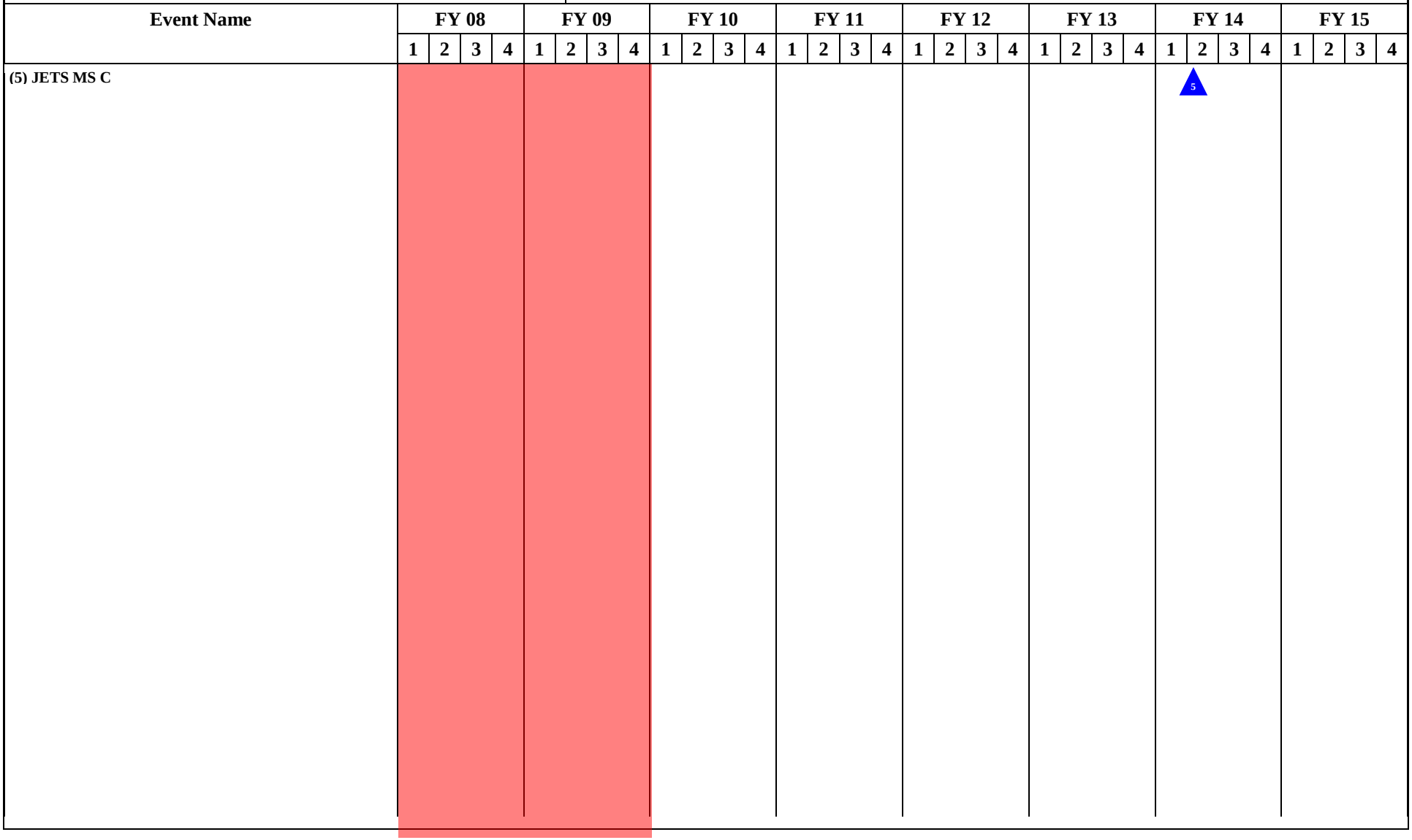
Schedule Profile (R4 Exhibit)

May 2009

BUDGET ACTIVITY
5 - System Development and Demonstration

PE NUMBER AND TITLE
0604710A - Night Vision Systems - Eng Dev

PROJECT
L76



Schedule Detail (R4a Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
5 - System Development and Demonstration	**0604710A - Night Vision Systems - Eng Dev**	**L76**

Schedule Detail	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Analysis of Alternatives for Laser Targeting Systems	3Q - 4Q							
SETA for Laser Targeting Systems	1Q - 4Q	1Q - 4Q						
LTLM & JETS Technical Development Design sources & prototypes		3Q - 4Q						
LTLM MS C		4Q						
AVAM Development & LLDR Integration	2Q - 4Q	1Q - 4Q	1Q					
AVAM Testing	2Q - 4Q							
JETS MS A			1Q					
Technology Development/prototype Build			1Q					
JETS MS B					1Q			
JETS Development-EMD		2Q - 3Q						
SSEB				3Q - 4Q	1Q			
JETS Contract Award					1Q			
Design					1Q - 3Q			
Prototype Build					3Q - 4Q	1Q - 3Q		
JETS Testing (DT/OT)						3Q - 4Q		
JETS MS C							2Q	